## (19) World Intellectual Property Organization International Bureau



## 

(43) International Publication Date 6 May 2005 (06.05.2005)

PCT

## (10) International Publication Number WO 2005/040402 A2

(51) International Patent Classification7:

C12Q 1/00

(21) International Application Number:

PCT/EP2004/011402

(22) International Filing Date: 12 October 2004 (12.10.2004)

(25) Filing Language:

English

(26) Publication Language:

**English** 

(30) Priority Data: 03023854.7

21 October 2003 (21.10.2003) EF

(71) Applicant (for all designated States except US): BAYER HEALTHCARE AG [DE/DE]; 51368 Leverkusen (DE).

(72) Inventors; and

- (75) Inventors/Applicants (for US only): GOLZ, Stefan [DE/DE]; Bückmannsmühle 46, 45326 Essen (DE). BRÜGGEMEIER, Ulf [DE/DE]; Leysiefen 20, 42799 Leichlingen (DE). GEERTS, Andreas [DE/DE]; Schuckertstr. 29, 42113 Wuppertal (DE). POLEJ, Stefanie [DE/DE]; Feldstr. 10, 78315 Radolfzell (DE).
- (74) Common Representative: BAYER HEALTHCARE AG; Law and Patents, Patents and Licensing, 51368 Leverkusen (DE).

- (81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.
- (84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

## Published:

 without international search report and to be republished upon receipt of that report

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: DIAGNOSTICS AND THERAPEUTICS FOR DISEASES ASSOCIATED WITH N-ACETYLATED ALPHA-LINKED ACIDIC DIPEPTIDASE 2 (NAALADASE 2)

(57) Abstract: The invention provides a human NAALADASE 2 which is associated with the cardiovascular diseases, dermatological diseases, gastroenterological diseases, cancer, hematological diseases, neurological diseases, urological diseases, respiratory diseases and reproduction disorders. The invention also provides assays for the identification of compounds useful in the treatment or prevention of cardiovascular diseases, dermatological diseases, gastroenterological diseases, cancer, hematological diseases, neurological diseases, urological diseases, respiratory diseases and reproduction disorders. The invention also features compounds which bind to and/or activate or inhibit the activity of NAALADASE 2 as well as pharmaceutical compositions comprising such compounds.